

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 10

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WOLFGANG STAUBWASSER

Appeal No. 2003-0639
Application No. 09/839,766

ON BRIEF

Before KIMLIN, KRATZ and JEFFREY T. SMITH, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1
and 2. Claim 1 is illustrative:

1. A process for forming a metallic catalyst carrier body having a multiplicity of at least partly structured sheet-metal layers contacting one another at connecting positions and defining a multiplicity of channels for the passage of a fluid, the process which comprises:

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- a) providing at least one metal sheet with corrugations having crests;
- b) defining first zones on the metal sheet to be continuous along some entire crests and defining second zones on at least one narrow edge zone of the metal sheet;
- c) applying adhesive material only to the crests within the zones and leaving all other locations of the metal sheet substantially free of adhesive material;
- d) subsequently incorporating the metal sheet in a honeycomb body, the adhesive material being naturally displaced to further positions adjacent the connecting positions;
- e) apply brazing powder to adhere to the adhesive material at the further positions of the honeycomb body; and
- f) removing any excess brazing powder from the body and brazing the honeycomb body for forming a metallic catalyst carrier body.

The examiner relies upon the following references as evidence of obviousness:

Mantel et al. (Mantel)	3,479,731	Nov. 25, 1969
Nonnenmann et al. (Nonnenmann)	4,521,947	Jun. 11, 1985
Cyron (German '944) (German patent application)	3,312,944	Oct. 11, 1984

Appellant's claimed invention is directed to a process for forming a metallic catalyst carrier body formed by bonding a corrugated metal sheet with another section of sheet-metal. The method entails applying adhesive material along the entire crests of only some of the corrugated crests, and also applying adhesive

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in a second zone comprising the narrow edge of the corrugated sheet.

Appealed claims 1 and 2 stand rejected under 35 U.S.C. § 103 as being unpatentable over Mantel in view of German '944, or German '944 in view of Mantel. Also, the appealed claims stand rejected under 35 U.S.C. § 103 as being unpatentable over Mantel in view of Nonnenmann or, in the alternative, over Nonnenmann in view of Mantel.

Appellant submits at page 6 of the Brief that "claims 1 and 2 stand or fall together for purposes of this appeal." Accordingly, claim 2 stands or falls together with claim 1.

We have thoroughly reviewed each of appellant's arguments for patentability. However, we are in complete agreement with the examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Inasmuch as we fully concur with the reasoning set forth by the examiner, as well as his cogent disposition of the arguments raised by appellant, we will sustain the examiner's rejections for the reasons set forth in the Answer, which we incorporate herein. We add the following for emphasis only.

As recognized by the examiner, none of the applied references discloses applying adhesive material in the manner presently claimed, i.e., along the entirety of only some of the corrugated crests and on at least one narrow edge zone of the corrugated sheet. We find it significant, however, as pointed out by the examiner and appreciated by appellant, that Nonnenmann specifically teaches applying the brazing powder and adhesive either across all of the corrugated crests or at the edges of the crests in a discontinuous pattern. Consequently, based on the collective teachings of Nonnenmann and the other references applied by the examiner, we are convinced by the examiner's reasoning that:

[T]o apply the coating completely along some of the crests (such as the first and last crest of the corrugated sheet in order to ensure a good bond between the sheet and the flat web in the interior of the body as well as to ensure that end edge of the wound body was secured to the remainder of the body) while leaving other crests coated along the edge (in order to reduce the solder consumption as suggested by Nonnenmann et al[.] or in order to render the finished body more flexible and thus better able to handle thermal strain as suggested by German Patent '944) would have been obvious to one of ordinary skill in the art and a prima facie case has been presented [page 11 of Answer, lines 12 et seq., emphasis added].

We agree with the examiner that German '944 would have provided ample motivation for one of ordinary skill in the art to apply

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the adhesive and brazing material in a manner which produces "a body having much more flexibility to counter stresses caused by thermal expansion, pulsing pressure, vibration, etc. wherein the life of the body was increased" (page 6 of Answer, last paragraph). Likewise, one of ordinary skill in the art would have been motivated by Nonnenmann's teaching that the application of a discontinuous adhesive pattern results in the advantage of a reduced consumption of solder while making a product that is adequate in thermal and mechanical stability. We find no argument in the Brief which refutes this rationale.

Finally, as emphasized by the examiner, appellant has not proffered any objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the prima facie case of obviousness established by the applied references.

In conclusion, based on the foregoing and the reasons well-stated by the examiner, the examiner's decision rejecting the appealed claims is affirmed.

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No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

AFFIRMED

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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PETER F. KRATZ)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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JEFFREY T. SMITH)	
Administrative Patent Judge)	

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